Missouri Botanical Garden

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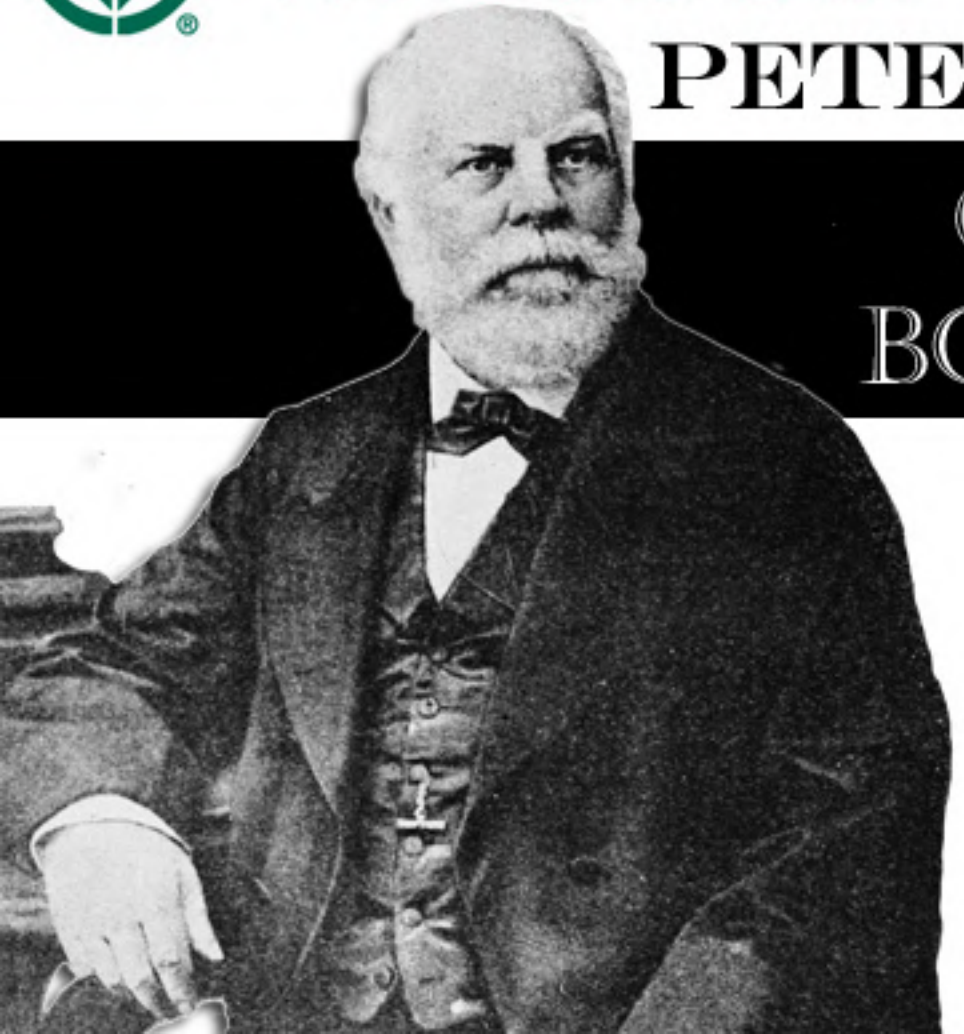
George Engelmann Botanical Notebooks



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energy of his character, and with but a single man as his escort, and no other guide than his compass, he determined to continue on his course. After a wearisome travel of many days, and having encountered many privations and dangers, he and his companion, Cadotte, arrived safely, but in almost a starving condition, at the Flathead Village, situate on the western slope of the Rocky Mountains. In accomplishing this part of his arduous task, Dr. Evans passed directly through the heart of the Blackfeet country, and travelled a distance of more than two hundred miles in the main chain of the Rocky Mountains before he succeeded in finding a passage to the valley beyond. It is much to be regretted that the credit of the discovery of this important pass, which unquestionably belongs to the subject of the present sketch, has been unjustly transferred to another. It should have been named in honor of Dr. Evans instead of Cadotte, since it is well known that the latter person had no knowledge of such a passage, and, in fact, had not even been in that region before he went there under the guidance of Dr. Evans. After a few days' rest at the Flathead Village our traveller resumed his journey, and without encountering further difficulties, reached Oregon city with much valuable information concerning the extensive district of country through which he had passed.

In the prosecution of the geological survey of Oregon and Washington, Dr. Evans was actively engaged for nearly five years, during which period his travels extended over a large portion of those Territories. The results of his important labors, embracing a large amount of information relating to the geology, topography, geography and natural history of that interesting portion of the American continent, are embodied in his large report submitted to, and ordered to be printed by Congress at its last session. It was placed in the hands of the Public Printer only a few days previous to the death of its lamented author, and it is a matter of deep regret, that, owing to some informality, its publication

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so much interest among scientific men.* And such was his energy that, almost unaided, he gathered in a few weeks the extensive collection of fossil bones which furnished to Dr. Leidy the materials for his splendid memoir on the "Extinct Fossil Fauna of Nebraska." At the same time he collected a large and elegant series of Cretaceous fossils, some of which were described and figured by Dr. Owen in his final report on the Geology of Iowa, Wisconsin and Minnesota. The notes made by Dr. Evans on the geological features of that remarkable region were likewise of the highest interest, and from these Dr. Owen has compiled one of the most instructive and beautiful chapters to be found in his valuable report. In addition to his scientific duties, Dr. Evans had almost exclusive control of the business department of Dr. Owen's survey, which of itself involved an immense deal of labor. The satisfactory manner in which he discharged these onerous duties, often in the midst of disheartening privations and even danger, commanded the highest esteem and confidence of Dr. Owen and his associates, while his goodness of heart, uniform courtesy, and self-sacrificing disposition, secured to him their warmest friendship.

After the completion of the field work of the North-west Survey, (1850,) Dr. Evans received the appointment of U. S. Geologist for Oregon, which he accepted, and immediately entered upon the duties of his new office with his usual energy and zeal. The survey was organized by the appointment of Dr. B. F. Shumard to the position of Principal Assistant,

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Jan 3 1832

seed ×60

Gentiana Chirayita Linn
microcalyx

×2

capsule

×2

calyx

no fringe

Ovaries glabrous with Appendages more closely
as the calyx of Amarella, though much smaller, but the growth of
Wight
Glands at the fringe of Appendages

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ALEX. LEITCH.
APOTHECARY & PHARMACEUTIST
Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

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Nov 22 87

Gentiana

I Corolla rotata v. tubulosa fere soluta antheræ cont.

(1. Asterias)

II Corolla tubulosa v. campanulata

A plicis destituta ♀ ♂ antheræ versatiles

a. Corolla faucе fimbriata stigm. oblong sem. subglobosa læv.

1.(4) Amarella

B. Corolla faucе nuda

α stigm. oblongum. sem. subglob. læv

2.(6). Arctophila (2 Andirola 3 Amarola)

(5 antarctophila

β stigm. ~~semiorbiculat.~~ dilatat. sem. squamosa v. alata

3.(7). Cronopeta læv

~~(4) Heterogena~~ ~~Borderi antrodes~~ §§. antheræ erectæ introrsæ (crom. ventrosa)

B plicis acuta antheræ erectæ fixatæ

a. introrsæ

α stigm. dilatat. ~~semiorbiculat.~~ ~~sem. subglobosa læv.~~

4 (8) Cyclostigma

β. stig—. oblong

5 (9) Chondrophylla

6 (10) Tretorhiza

b. extrorsæ stigm. oblong

7 (11) Pneumonanthe

(12 Thylacites
13 Eulanthe)

Incertæ sedis

10 Pneumonanthe & plicis acuta, faucе fimbriata antheræ "dorsum" versatile -

14 Dasystephana Andinis proximæ sed antheris erectis

Verte

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I Corolla Dec 18 1874

1 Amarella G. amarella (G. acuta, tenuis)
G. heterosepala Eng.
G tenella Fries

2 Arctophila G. quinqueflora Lam
G. propinqua Richards
G. Alentica Chem & Schlecht.

3. Crossopetalum G. caudata Eng
G. detorsa Fries
G. crenata Frost
G. simplex Gray

4 ~~Hesperia~~ G. rubricosa
~~G.~~

II

4. Cylindrostigma G. niveis Li (Labrador)

5 Chondrophylla G. porsita Hooke
G. humilis Sav.

6. Protorhiza G. Douglasiana Bong.

7. Pneumonanthe G. frigida Hooke ant lib
G. glauca Pall. lib.
G. saponaria L comm.
G. pulcherla Mich lib comm
G. Andrewsii Gris comm
G. ochroleuca Frost lib
G. alba Muhl. comm. lib.
G. affinis Gris
G. angustifolia Mich lib comm
G. platypetala Gris lib
G. Menziesii Gris lib
G. Parryi Eng lib
G. Gentianoides Gris lib
G. Freyeriana Gris lib lib
G. Newberryi Gray lib
G. Organum Eng (lib comm)
G Elliottii Chapm. = pulcherla fide Gray no

1—7. 14 species
& 15 species
17

Sect 4 pulcherla dont
Covers the walls
Gray

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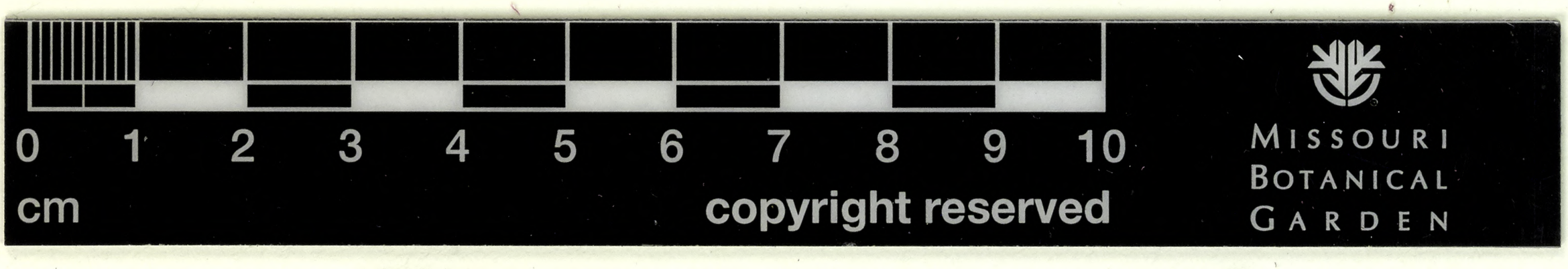
Gentiana Wislizeni Eng. (annual, erect, with erect branches,) stem
~~erect~~ angled; (leaves sessile, lanceolate to ovate, obtuse or
cordate at base, parallel veined, flowers on short or
longer pedicels; calyx ~~obtuse~~ with sinus short lobes not shorter than ½ the
corolla tube, split down to the base, at last often
reflexed; lobes of corolla about half as long as tube, ovate-
acute, prolonged above the base; filaments adnate at lower
third of tube, as long as throat; ovary ~~ellipsoid~~
linear; seeds ~~ovate~~ ~~globose~~ smooth.

White Mountains of North eastern Arizona south to Chiricahua
Mts at ~~4000~~ 6000 ft. alt. Flowers large leaves 1" long, ⅓ to
over ½ wide (ft. 4-5 long) calyx 1½-2 very pale blue

† Similar in habit to the nearly allied G. parryi but
easily distinguished by ~~with~~ smaller flowers more angled stem and especially
the irregular membranous slit calyx with its
short lobes. — The Arizona form has wider, coarse
leaves, & longer pedicels (and larger seeds,
less distinct glands at the base of the corolla
greenish blue anthers
seeds — Ch. h. form 0.2 — the Arizona plant 0.3 Chs — Coryphantha sicut



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Ithaca, N. Y. Feb. 20, 1877.

Dr Geo. Engelmann

St. Louis, Mo.

Sir knowing that you are a lover of botany I take the liberty to ask, if you can inform me where I can purchase or exchange for a set of your native plants, please re=ply at your earliest convenince, and oblige,

Yours Resp.

Charles Atwood

No. 57, North Univ. Building.

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Nov 21 1874

Antherae Gentianearum

1. Antherae versatiles
Virgineae introrsae, effoetae
basi sursum spectante extrorsae

2. Antherae erectae fixae introrsae

3 Antherae erectae fixae extrorsae

Genera

Connectivo

1. 2. Andrewsia, 3. Jmaia odae 4 Amarellae 5 Antanthophila
6 Arctophilae 7 Crossopetalum 10 Curythelia

2 ~~Astrantia~~ 8 Cyclostigma 9 Chondrophylla 15 Arctostaja

3 ? Asterias ? 11 Pneumonanthe 12 Thylacites 13 Coelanthe 14/2
14 Dasystephana ?

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LIST AND QUANTITIVE COMPOSITION

OF

BISHOP'S GRANULAR EFFERVESCENT SALTS.

Granular Effervescent Bromide Ammonium, . . 2 grs. in ℥i.
" " Citrate Bismuth, . . . 2 " "
" " " Cinchona, . . . 1¼ " "
" " " Cinch. and Iron, { 1¼ " Cinch. / 1 " Iron, } in ℥i.
" " Carlsbad Salts, as the natural water.
" " Citrate Lithia, ... 2 grs. in ℥i.
" " Nitrate of Cerium, . . . 2 " "
" " Bromide Iron, ... 2 " "
" " Carbonate " . . . . 2 " "
" " Citrate " . . . . 2 " "
" " Iodide " . . . . 1 " "
" " Phosphate " . . . . 2 " "
" " Kissingen, as the natural water.
" " Magnesia Aperient. Printed directions and dose.
" " Benzoate Potassa, . . . 2 grs. in ℥i.

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Nov 21 1874

Corolla rotata

1. Asterias

Corolla nuda plicis fimbriisque destituta

2 Andricla 3. Smaicola 5 Antarctophila

6 Arctophila 7. Cosmopetalum 14 Dasystephana

Corolla fauce fimbriata plicis destituta

4 Amarella

Corolla plicis aucta, fimbriis destituta

8 Cyclostigma 9. Chondophylla

11 Pneumonanthe 12 Thylacites

13 Coelanthe 15 Pneumatopteris

Corolla plicis fimbriisque aucta

10 Eurythalia

Corolla rotata

Corolla tubulosa campanulata et

plicis non aucta

nuda 2. 3. 5. 6. 7. 14.

fimbriata 4

plicis aucta

nuda 8. 9. 11. 12. 13. 15

fimbriata 10

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BISHOP'S

GRANULAR EFFERVESCENT SALTS.

We ask the attention of Physicians to the annexed list of Granular Effervescent Salts, manufactured by Bishop, of London, England.

Mr. Bishop was the first to introduce Granulated Salts to the notice of medical men, and his make of these Preparations is preferred in Europe by the leading apothecaries and physicians to those prepared by any other chemist.

The annexed endorsement by Dr. Redwood, the highest authority in the London Pharmaceutical Society, is one of the many certificates received by him:

"Since the introduction by Mr. Bishop of saline medicines in the granular effervescent form, their use has undergone a great extension, and this method of administering medicines seems to be very generally approved. It is especially suited for the administration of Carbonate of Iron, and the saline constituents of some mineral waters, but it is applicable to many other medicines, the use of which has been greatly increased by making them palatable. I have examined a great many samples of Mr. Bishop's granulated preparations, obtained at various times and from different sources, and have found them rate very uniform in character, fully charged with Carbonic Acid, and obviously made with great care and accuracy.

"Theophilus Redwood, Ph. D."

We have received the agency for America for the sale of these Salts, and will always have in stock a full supply of his Preparations.

JOHN WYETH & BRO.

1412 Walnut Street,

PHILADELPHIA.

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Genus ——— Microdictyon sp. favosae 0.2 – 0.6 mm dia
—— cem mem. globos s. ovat mem. articul

Cryptom
Dactom. } stem tubes, mem — cem pore
s pellet

Subsalsi
microrabu } stem fauci invest — cem pore

Chlorococ Schizoc of S. Afr —
Chlam of Europe etc — also here

probly comprises the gen. Pal of
most of Gaidukov's Chlorococc and
Chlorac

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Dear Sir

Please send
me your bill for services last
summer as I wants to go out
the next year clear of debt.

Respectfully Yours
W. P. Mitchell

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Gentiana Pneumonanthe L.

Der Honig wird von der Basis der Fünfknotenstiele abgesondert, in Gründe sind 25-30 mm. langen, am Eingange 8-10 mm. weiten Blumenröhre beherbergt v. Dadurch, dass die Blüthen bei trübem Wetter sich schließen, gegen Regen geschützt. Die Blumenröhre verengt sich erst unterhalb ihrer Mitte plötzlich, indem die von hier ab bis in den Grund der Blüthe mit d. Blumenkrone verwachsenen Staubfäden die Fünfknoten dicht umlagern. Ihr Honig kann daher bis etwa in d. Mitte der Blumenröhre hinein saugen; von da ab müssen sie aber den Rüssel zwischen 2 Staubfäden v. die Blumenkrone ~~hinab~~ ~~drängen~~ ~~und so gewaltsam~~ in jüngeren Blüthen mit Pollen behaftet sein, die zugleich Narbe der beiden Geschlechter, welche sich über die Antheren hinaus verlängert v. so zwischen Pollen haben, dass sie bei ihrer ganzen pollenlose Innenfläche der Berührung der in die Blumen kriechenden Hummeln darbieten. Bei mittelmäßig Fremdbestäubung nimmt die Selbstbestäubung bei ausbleibenden Insek-

obere Stirn in Folge der ausgeprägten Alpen-
nur u. der Bildung der Staubgefässe zur art-
wirkliche Norbe unmöglich. Als Lösung habe
ich ausschließlich Gründe bemerkt 1, Bombus
agrorum 2. B. senilis L.n., beide schwärmen
soll, nur sgd.

Gentiana asclepiadea n. ciliata sind in
gleicher Weise ausgeprägt protandrisch.

Gentiana Amarella L. Gfalt. G. acaulis unterscheidet, die
ist deutlich dreist
der Honig wird von fünf klaffen, grünen, etwas
fleischig verdickten Schuppen am Grunde der Blumen
krone geschützt je 2 Staubfäden abgesondert d. den
die Honigau, von der Honig geschützen Röhre
& Pinne der Blumenröhre krone von der Blumen
krone derselben senkrecht abstehenden Narbe
gegen den Eintritt von Kleingau, durch das fle-
schlichen der Blüthen die trüben Blutter gegen
Regen geschützt. Zwischen den Grase wachsend
bricht d. Blume die Zipfel der aufrecht stehen-
den Blumenkrone auseinander d. macht sich
so, ihren Standort aufsuchend, auf den am
meisten bemerkbar.

Die Blumenröhre ist 16 – 18 mm. lang, aber
die Honigau 6 mm. weit, so daß der
Honig bequem ihren Rüssel zum die Basis
seiner Staubfäden u. Honig zu die Basis

+ Die Corolle wird bei fast allen in der gebrochenen Blüthen

geöffnet, nachdem sie vorher ihre meisten Bewegungen ausgeführt hat. Die Blüthenstände nehmen während der ganzen Blüthezeit eine so günstige Lage ein, daß der Blüthenstaub nicht leicht verloren gehen kann. Die Dauer der Blüthezeit ist eine sehr verschiedene, bei einzelnen Individuen nur wenige Tage, bei anderen aber mehrere Wochen. Selbstbestäubung ist dann bei einzelnen Individuen nicht unmöglich, aber da die Blumenblätter von der Nacht überrascht werden, so kommt sie ebenfalls nur selten vor. In der Regel findet Fremdbestäubung statt. Auf den Blüthenstand stellen sich die Blumenblätter wieder in die Knospenlage ein, die Blüthe ~~ist~~ schließt sich von der Spitze her. Ob bei ausbleibendem Insectenbesuch Selbstbestäubung erfolgt, habe ich nicht beobachtet. Als Besucher kommen in Bombus silvarum an gelbrothen Blüthen saugend.

Gentiana verna auf Delphino provinciae mit kürzlichen Blumen.

Julie Braun

(Aus Dr. Hermann Müller, die Befruchtung der Blumen durch Insecten und die gegenseitigen Anpassungen derselben. Leipzig 1873 bei Engelmann. mit 152 Holzschnitten — Separat-Preis 733.)

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Gentianaceae DC IX. 38

1. Chironieae	gen 1–7	p. 38
2. Chloreae	gen 8–28	49
3. Lisianthieae	gen 29–40	70
4. Swertieae	gen 41–53	86
Menyantheae	g. 54–57	136

Gentiana p. 86–118

1. Asterias	sp. 1	86
2. Andicola	2–47	87
3. Imaicola	48–49	94
4 Amarella	50–63	95
5 Antarctophila	64–67	98
6 Arctophila	68–74	99
7 Crossopetalum	75–81	101
8 Cyclostigma	82–88	103
9 Chondrophylla	89–110	104
10 Erythraea	111–113	108
11 Pneumonanthe	114–143	109
12 Thylacites	144–	115
13 Coelanthe	145–148	116
14 Dasystephana	149	117
15 Tretorhiza (Cruciata)	150–153	117

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Alex. Leitch,

APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.

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Gentiana obtusifolia W. (var of Gentiana Gruneri Schur

G. germanica Kryburg

G. crucipeata Riga Isle Schur

G. verna Schur - Lemb - Wenzerm Bruning

G. nivalis (2) Faulhorn

G. bavarica Z " "

G. aurita

G. acaulis

G. ciliata

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Gentiana tenella Rottb. = Act Hafn. X. 436 t. 2 f 6 Vill sp. pl.

Ledeb. Fl. Ross III. 56 .... calyx 4–5 partitis laciniis inæqualibus
1846 basi saccatis ellipticis vel obovatis oblongisve ...
Hab .... Amur. austr. ad r. Kolyma (Beechey) & Eschscholtz
(Chamisso, Esch.

G. glacialis Vill. Cham & Schl. = Linn. 1. 182 Kolyma and Beechey.
only the name = Hook fl. Am. = Bot Voyage 127

G. glacialis Vill. Linn 1. 182: specimina minima pollicaria 1-flora — plura-8
pollicaria &c — notes on the variability of the plant. especially in N. America

1787
G. glacialis Adr. Thomas ap Vill Delph. 2. 532. (G. tenella Rottb)
= Koch Fl. germ. (1837) p. 491

Ledebour is the only one (within my reach) who speaks
of the protracted base of calyx — a very marked character

Acta Prod IX p. 94 (1845) by Griesbach to:
Gentiana tenella Rottb = Act Hafn X 436 (1770)
(G. glacialis Adr. Thom. = Vill Delph.)

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Organ Exhibition.

OPENING OF THE NEW ORGAN, AT

PILGRIM CONGREGATIONAL CHURCH,

COR. WASHINGTON AND EWING AVENUES,

TUESDAY EVENING, DECEMBER 17TH, 1872,

UNDER THE DIRECTION OF

MR. A. J. CRESWOLD.

ADMISSION, - - - - - FIFTY CENTS.

PROGRAMME.

PART 1.

1. TRIUMPHAL MARCH.....COSTA
2. SONATA—No. 4 in B Flat.....MENDELSSOHN
3. GRAND OFFERTOIRE—St. Cecilia.....BATISTE

MISS E. JOHNSON.

4. OVERTURE—"Fra Diavolo".....AUBER
5. FANTASIA ON GOUNODS—"Faust".....CRESWOLD

PART 2.

1. OFFERTOIRE—In G.....WELY

MISS E. JOHNSON.

2. HARMONIOUS BLACKSMITH—Handel, with var..CRESWOLD
3. OVERTURE—"Midsummer Night's Dream".....MENDELSSOHN
4. IMPROVISATION—Introducing "Home. Sweet Home," and National Airs.....CRESWOLD

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Nov 19 1874

Anthers in Gentiana ex Griesebach

= Dc. Prod 9.

antherae incumbentes vel erectae, binae in tubum connatae, et extrorsum dehiscentes

p. 86 1. Asterias (G. Astera) anth. erectae Cibene

p. 87 2. Andicola 3. Imaicola 4. Amarella 5. Autantophl 6 Antaphl

anthene versatiles Cibene

p. 101. 7. Crossopetalum antherae plerumque versatiles Cibene

p. 103 8 Cyclostigma 9. Chondrophylla antherae erectae Cibene

p. 108 10. Caryphelea anth. demum versatiles Cibene

p. 109 11. Rheumonanth anth. plerumque erectae Cibene aut

p. 115 12 Thylacites (G. acaulis) Anth. erectae connatae connata

13 Coelanth (G punctata) " " " "

14 Dasystephana " " Cibene

15 Tretorhiza (connata) Antherae erectae vel incumbentes

(Dasylasion ! Anthen mutantes.) Cibene

1. antherae erectae (Cibene vel connatae)

1. 8. 9. 11. 12. 13. 14. 15 (X & 15 c. except)

2. antherae versatiles.

2. 3. 4. 5. 6. 7 10.

antherae Connatae 125. 126. 134 135 138 141 143 — 144 - 148

— seen by me

over

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4 Quercus Sonomensis Benth. allied to our

Q. Cerris ~~X~~ robur

424 without Cabal, is Quercus vaccinifolia

with fruit, which is of much interest to me; I

have from Bolander only the flowers. — No!

on more careful examination it proves a very

different thing about Beth. I should much like

to see more. — Bolanders so called Q. vacci-

~~[illegible]~~ fruit, and is too near a Quercus & might

~~Quercus~~ Yours is a very different thing, and

~~of especial~~ value to me as it is the 3d

to and hitherto unknown sp. of California

~~all [illegible] material~~ fructification Sonomensis, & like

~~and the~~. I should like to learn more of its

~~[illegible]~~

Feb 26 1877

Seeds of Gentiana Sect Pneumonanthe

The seeds marked — are perfectly mature — the others more or less So

Semina aptera

globoso-ovata

— G. ochroleuca

ovata

— G. sceptrum

linear-lanceolata

G. calycosa — sup. planiusculus

G. Pneumonanthe — S. applanato-planiusculus

Semina ovata cristata

G. frigida

G. glauca

Semina oblongo-linearia alata

anguste alata

G. triflora 1

G. Andrewsii 2

G. Elliottii 8

— G. pubella 3

G. linearis 4

— G. Saponaria 5 late alata

— G. Parryi

G. alba 9

— G. affinis 6

Semina ovata late alata 7

G. Newberryi

Semina ovata vel biovulata margine late alato

G. Asclepiadea

— G. purpurea

G. pectinata

— G. Pneumonanthe

The winged seeds are usually obtuse or retuse at the upper and acute at the lower or bottom end

in G. Elliottii" they are acute at both ends

— G. Parryi — obtuse —

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long leads

mostly obtuse above, ante at base

ante at both ends – Illecebr.

obtuse at both ends – Paron.

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DC. Pr. 3. IX p. 106. Quantowna sect IX. Chaerophyllum

N. 306 Fany 4. meni ; ovoideo-globosa, plica valleculari attenuata ; capsula linear-oblonga ± stipitata ; stipes brevissimus ; corolla 5"

N. 135 Fany 5. meni ; ovoideo-globosa, basi attenuata ; capsula linear-oblonga ± stipitata, basi attenuata ; corolla 5"

94 G. pusilla fol. obovatis 5. meni ; styl. brevi ; capsul oblonga supra stipitem rotundata corolla 3-6 m

95 G. Gayi styl. brev. caps. oblong ± stipit. longissim attenuata

96 G. Karelini caps. obovat. stipite corolla excedente

97 G. aquatica styl null. caps cuneata basi attenuata, apice subtruncata — corolla 3-4 m

98. G. riparia caps. obovata-truncata, stipite corollam subaequante

99. G. humilis foliis imis maximis ; styl nullo ; caps. obovato-subglobosa basi attenuata — corolla 3-4 m

100. G. squarrosa glabrescens-pilosa, caps cuneata basi acuta, apice truncata

101 G. pedicellata caps obovata, apice rotundata — corolla 6 m

102 G. aprica styl. elongat ; caps oblonga, exerta — corolla 6 m

103 G. decumbens styl nullo caps ovalis — corolla 6 m

104 G. Zeylanica styl null. caps ovali, stip corollam aequans capsula 2-3 plo longior — corolla 5 lin

107 G. marginata styl di-dimorphis aequans

0 1 2 3 4 5 6 7 8 9 10
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21	28
24	48
23	37
29	50
24	44
29	58
35	26
29	61
32	72
26	54
5	5
282	535
119	
401	

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Parry Engl

304 Gentiana. n sp was found near the foot of Alpine slopes. associated with Pentstemon procerus. P. Parryi Suertia. perennis. Castilleja pulpurea. &c grows in scattered tufts with conspicuous purplish blue flowers. leaves smooth stiff & a deep green often bluish near the summit

aff. — calycosa Menziesii. & scopulorum Gentiana Parryi Engl — Watson Trans acad vol II tab 10. One of the handsomest species in our western Alpine region Distinguished from the 2 allied species Menz & calyc

(G. scopulorum: plicae interjectae multifidae longe capillaceae ft
G. Menziesii cal. spathac. plicae brevissimae 2-3 crenatae fl. singl
G. calycosa cal. lobi foliacei plicae multifidae acutae fl. singl

contracted tubular by having usually more than one flower in a head (in one species only one flower) short buds — (and by the acute deeply 5 lobed) folds (by the peculiar rasinate bases at the base of each flower and

boatshaped base

4

Gentiana (Pneumonanthe) Parryi, spec. nov.: caulibus perennibus, ascendentibus simplicibus pluribus vestitis foliis, apice paniculiflorus; foliis glaucescentibus, e basi lata ovato-lanceolatis, ovatis s. ovato-lanceolatis, obtusiusculis s. acutis, patulis; summis flores sessiles angustissime cauliformibus rarissime capitatis involucrantibus; floribus magnis cyaneis purpureo-coeruleis; calycis 5fidi membranaceo-hirsuti laciniis ovatis acutis, tubo subbrevibus; tubo corollae dilute coeruleo apertae obconico cylindraceo bis superante, lobis ovatis acutiusculis plicas bifidas vix excedentibus; plicis lanceolato basi dilatato instipitatis. Colo. (Thurber and Parry) 1874 N. 304

Post Alpine Slopes on the Snowy Range, Dr Parry

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Hall & Harbour, N 470 (a narrow-leaved form) Middle Park
Pass., a ~~depauperate~~ form. Rydb. gives the name and pass. here
also he collected by Fremont, Kreutzfeldt and Howard & Gen. ex. Rydb.
~~different parts of the Rocky Mts~~ according to Rydb. Gray's statement.
Fl. in August. — A ~~robust~~ striking plant, the large dark
purplish blue flowers ~~with~~ a beautiful contrast with the
pale green leaves; stem 5–9' high; leaves
~~the~~ the largest 3–5 l. & 10 l. wide, in the
rosette 10–12 l. & 3 l. wide — and of all nearly
entire from, ~~all slightly~~ roughened on the edges
sessile flowers, leaves by 2 pairs & 4
short bracts; calyx ~~exhibit~~ its lobes 15–18 l. & half as long as the tube
of the corolla, entire or the rare or less slit on one side;
lobes of the corolla about one third the length of the tube,
ovate or wider upward to the at base; sinus lobes of the
folds almost as long as lobes; fruit not seen. —
Nearly allied to G. calycosum, ~~but~~ but ~~the~~ differs by the
single flowers, absence of involucre, ~~shape~~ the large
oval lobes of calyx and the length & shape of the folds. also
G. Menziesii — G. platypetalum which also have single flowers
a different calyx, different lobes of Corolla, the sepals
G. septentrionale has long folds different into many broadly ovate lobes,
the broad base of
Pl. 10 represents our species. — the right figure the
upper most leaf is put down to show the shape of the
calyx & of the bracts.

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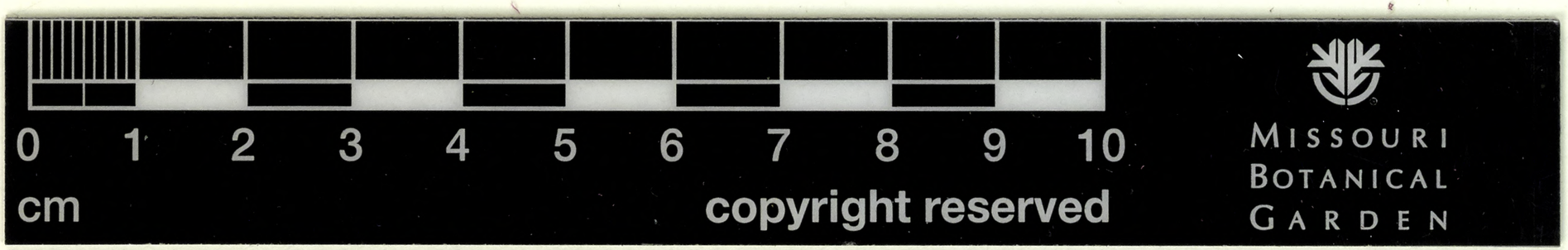
Genuina
Gentiana Amarella L. 4 quadripartita.

Gentiana Amarella (Amarum obtusi
(G. Acuta Mx.)

Hall 473 & Pany 307 & 309 show an extreme variability
in size, manner of branching or inflorescence, shape and
size of leaves, proportion of calyx, size & colour
of corolla & size of seeds.



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307. G. acuta. Rattles common in shaded pine woods and moist places. Upper Clear Cr. in shaded places. The flowers are broader, all except the uppermost obtuse, pilegrees both sides, of a pale blue. (and lax rather scattering habit) in more open places. The corolla & leaves have a darker color and more strict habit.
Cranes marsh above Paty Dark gre, Colorado. Carey 1864

G. acuta var stricta Gries. Gent. as above both are about 1 foot high — internodes shorter in the middle most beyond the flowers, these 1–1¾ inches long 3 — (lowermost) 7 lines wide. Flowers 5–6 lines long, segments calyx very unequal, 2 longer and broader lobes often exceeding the tube of corolla. Color I could not obtain, perhaps a bluish, half as long as the tube. Seeds smooth and even 1/3 line — Heads longest long. From specimens in the Gray it is distinguished by the lanceolate leaves and especially by the longer calyx; the latter being only half as long as tube. A specimen from Lower Canada, in the Gray herbary represents Michaux plant, has very acute leaves, smaller flowers, a more regular shorter calyx & quite acute corolla — Colo. North

The very nearly allied G. Amarella of Europe has the corolla much deeply divided and its lobes

Quite obtuse

1. Gentiana Amarella 4 parts. 0.28 lanceolate leaves
2. G. subsp. Stenyan acuta Carey 1861 5 — 0.37 lanceolate leaves
— var Cox & Hall & Harb. Hall & Harb.
3. G. — Canada (4) 4 always! 0.33 lanceolate leaves
4. G. — Carlton house 5 — Must 0.17 linear leaves
5. G. — Hall & Harb. (4–)5 a 19 linear leaves
6. G. tenuis Hitchcock 0.23 linear leaves
7. G. — Mayfield 0.20 linear leaves
8. G. — Hayden 0.23 linear leaves
9. G. — Gries 0.20 linear leaves

Feb. 6 Amarella

amarella subsp. acuta

tenuis

Range: G. tenuis var, from Ariz (D.C.W.) May 6 = 5

X) calyx tube rr. longer than segments

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Feb 1865 ovate-oblong bracts ciliate-fringed pallid corolla-tube

468 Gentiana affinis Gris. Genuine ½ corolla
angusta clavata, calycis lobis linearibus inaequalibus
tubum longitudine subaequantibus, plicis parvis undulatis spathulatis sub-
acquabilibus; ovate-oblong

469 Gentiana affinis Gris. var brachycalyx. ½ corolla
cyanea major, subcampanulosa, calycis ~~lobis~~ dentes
abbreviato truncato sed ~~lobo~~ ~~unus alterus brevissimo~~ brevi
crenulato dentato vix aequans lobis duo alteros

instructa. — This ~~could scarcely be~~
has the appearance of a distinct species; but the characters
taken from the calyx are variable, and moreover,
Dr Parry has sent specimens from the same region,
~~which by the larger lobes of~~ have the ~~corolla~~;
entirely agreeing with the last form, ~~&~~ but
with a ~~more~~ decidedly colored calyx. With specimens
collected by Mr H. Engelmann on Sweet Water
River have an entire or a semi-spathulate corolla,
with colors of different degrees of perfection. First specimens
show that many stems grow from a large root
with many fleshy yellowish fibres.

A. Gray

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